

What is claimed is:

1 **1.** A voice-operated arrangement for interacting with a dual-tone multifrequency
2 (DTMF)-controlled system, the arrangement comprising
3 a speech recognition unit responsive to voice commands from a user and
4 generating a digital signal representative of a particular received voice command;
5 a speech-to-DTMF tones application, responsive to the digital signal outputs from
6 the speech recognition unit for accessing a proper user record from a plurality of user
7 records, retrieving dial-out information for the accessed user's DTMF-controlled system
8 and completing a communication path between the user and said DTMF-controlled
9 system, wherein said voice-operated arrangement monitors the communication path and
10 retrieves predetermined voice commands uttered by the user and translates said
11 predetermined voice prompts into DTMF tones which are thereafter transmitted to said
12 DTMF-controlled system.

1 **2.** The arrangement as defined in claim 1 wherein each user record includes a
2 spoken voice identification field.

1 **3.** The arrangement as defined in claim 2 wherein each user record further
2 includes a spoken voice password field.

1 **4.** The arrangement as defined in claim 1 wherein each user record comprises a
2 plurality of different fields for each DTMF-controlled system associated with that user.

1 **5.** The arrangement as defined in claim 4 wherein the plurality of different fields
2 for a DTMF-controlled system in a user record comprises a dial-out access number for
3 the DTMF-controlled system and a mapping of a plurality of voice commands to an
4 associated plurality of DTMF tone sequences.

1 **6.** The arrangement as defined in claim 5 wherein the plurality of different fields
2 further comprises a series of DTMF tones for accessing the proper DTMF-controlled
3 system within the user's plurality of such systems.

1 **7.** The arrangement as defined in claim 1 wherein at least one DTMF-controlled
2 system is a voice messaging system.

1 **8.** A method for interacting with at least one DTMF-controlled
2 telecommunications system, the method comprising the steps of:
3 a) accessing, by a user, a speech-to-DTMF tone application;
4 b) retrieving a proper user record for the user identified in step a);
5 c) dialing out, by the application, to a DTMF-controlled system included in the
6 user record retrieved in step b);
7 d) bridging together the call between the user and the application and the call
8 between the application and the DTMF-controlled system;
9 e) in response to predefined voice commands uttered by the user and received by
10 the speech-to-DTMF tone application, translating said voice commands into one or more
11 DTMF tones accepted as commands by the DTMF-controlled system; and
12 f) transmitting said translated DTMF tone commands from the speech-to-DTMF
13 tone application to the DTMF-controlled system.

1 **9.** The method as defined in claim 8 wherein in performing step a), the method
2 comprises the additional step of authorizing a user by requesting and validating a spoken
3 user password.

1 **10.** The method as defined in claim 8 wherein the method is used for retrieving
2 messages from a plurality of different messaging systems associated with a single user,
3 the method comprising the further steps of
4 g) querying the user record for additional DTMF-controlled system fields; and
5 h) repeating steps c) – f) for each additional DTMF-controlled system.